

# Masters

---

Refer to the *In Advance* section in each lesson for more information about the number of copies required for each master. Masters marked with an asterisk (\*) are not needed if you use the CD-ROM version of the activity.

## Lesson 1, The Brain: What's Going On In There?

<b>Activity 1: What Does the Brain Do?</b> .....	None
<b>Activity 2: Positron Emission Tomography and Brain Function</b>	
Master 1.1, <i>Positron Emission Tomography (PET) Images*</i> .....	Team Copies
Master 1.2, <i>Interpreting PET Images</i> .....	Student Copies
Master 1.3, <i>PET Image Tasks</i> .....	Transparency
<b>Activity 3: Parts of the Brain</b>	
Master 1.4, <i>Major Regions of the Brain</i> .....	Transparency
Master 1.5, <i>Areas of the Cerebral Cortex and Their Functions</i> .....	Transparency
<b>Activity 4: Who Was Phineas Gage?</b>	
Master 1.6, <i>What Happened to Phineas Gage?</i> .....	Student Copies
<b>Activity 5: Where Do Drugs Act?</b>	
Master 1.7, <i>The Reward System</i> .....	Transparency

## Lesson 2, Neurons, Brain Chemistry, and Neurotransmission

<b>Activity 1: Anatomy of a Neuron</b>	
Master 1.7, <i>The Reward System (from Lesson 1)</i> .....	Transparency
Master 2.1, <i>Anatomy of a Neuron</i> .....	Transparency
Master 2.2, <i>Neurons Interact With Other Neurons Through Synapses</i> .....	Transparency
<b>Activity 2: How Do Neurons Communicate?</b>	
Master 2.3, <i>How Do Neurons Communicate?</i> .....	Team Copies
Master 2.4, <i>Neurons Communicate by Neurotransmission*</i> .....	Transparency
Master 2.5, <i>Neurotransmission</i> .....	Student Copies
<b>Activity 3: Do All Neurotransmitters Have the Same Effect?</b>	
Master 2.6, <i>Recording the Activity of a Neuron</i> .....	Transparency
Master 2.7, <i>Neurotransmitter Actions</i> .....	Student Copies
<b>Activity 4: One Neuron Signals Another</b>	
Master 2.8, <i>Neurons in Series</i> .....	Student Copies

### Lesson 3, Drugs Change the Way Neurons Communicate

#### Activity 1: Drugs Alter Neurotransmission

Master 3.1, *Cocaine Alters Neurotransmission* ..... Transparency

Master 3.2, *Methamphetamine and Nicotine Disrupt Neurotransmission* ..... Transparency

Master 3.3, *How Does Alcohol Affect Neurotransmission?* ..... Transparency

#### Activity 2: How Does Caffeine Affect You?

Master 3.4, *Parent Letter* ..... Student Copies

Master 3.5, *Caffeine: How Does Your Heart Respond?* ..... Student Copies

#### Activity 3: Routes of Administration

Master 3.6, *How Do Drugs Get In the Body?* ..... Student Copies

Master 3.7, *What Should the Doctor Do?* ..... Transparency

### Lesson 4, Drug Abuse and Addiction

Activity 1: How Does Drug Abuse Begin? ..... None

#### Activity 2: Drug Abuse is Voluntary; Addiction Is Compulsive

Master 4.1, *Data for Rat Self-administration Experiment* ..... Student Copies

Master 4.2, *Worksheet for Rat Experiment Data* ..... Student Copies

Master 4.3, *Evaluating the Experiment* ..... Student Copies

#### Activity 3: When Does Abuse Become Addiction?

Master 4.4, *Playing the Game* ..... Transparency

#### Activity 4: Environmental, Behavioral, and Social Influences on Drug Abuse and Addiction

Master 4.5, *Who Is Addicted?* ..... Transparency

#### Activity 5: Long-term Effects of Drug Abuse and Addiction

Master 4.6, *Long-term Effects of Drugs on the Brain\** ..... Student Copies

### Lesson 5, Drug Addiction Is a Disease—So What Do We Do about It?

#### Activity 1: How Effective Is Treatment?

Master 5.1, *Ranking Disease Treatment Outcomes* ..... Transparency

#### Activity 2: Evaluating the Case Studies

Master 5.2, *Ruth's Story\** ..... Team Copies

Master 5.3, *Mike's Story\** ..... Team Copies

Master 5.4, *Carol's Story\** ..... Team Copies

Master 5.5, *Disease Reference Information\** ..... Team Copies

Master 5.6, *Evaluating the Cases* ..... Student Copies

Activity 3: Success Rates for Treating Chronic Illness ..... None

Activity 4: Addiction Is a Brain Disease ..... None